

SANITARY FACILITIES
Walsh County, North Dakota

In an area sanitary landfill, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
An: Antler , Stony-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Poor: wetness
Ao: Antler-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
As: Arveson-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness		

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Buse, Stony-----	Severe: percs slowly	Severe: large stones slope	Severe: large stones	Moderate: slope	Fair: large stones slope too clayey
BgC: Barnes-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Fair: too clayey
Renshaw-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
GlB: Glyndon-----	Severe: wetness	Severe: seepage wetness	Severe: seepage wetness	Severe: seepage wetness	Fair: thin layer wetness
Gm: Glyndon, Moderately Saline-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Fair: too sandy wetness
Gr: Grano, Very Wet-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
Gs: Grano-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
Hegne-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Ha: Hamar-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy wetness
Ulen-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy
Hd: Hamar-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy wetness
Ulen-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy
He: Hamerly-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Cresbard-----	Severe: percs slowly	Moderate: wetness	Severe: excess sodium wetness	Moderate: wetness	Poor: excess sodium hard to pack
HgA: Hamerly-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Svea-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
HgB: Hamerly-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Svea-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Hh: Hattie, Lacustrine----	Severe: percs slowly	Severe: slope	Severe: too clayey	Moderate: slope	Poor: hard to pack too clayey
H1A: Hecla-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy
H1B: Hecla-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy
HmA: Hegne-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Fargo-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
HmB: Hegne-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Fargo-----	Severe: percs slowly wetness	Moderate: slope	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Hn: Hegne, Saline-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Hs: Hegne, Str. Saline, Alkali-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Pg: Pits-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage small stones too sandy
Pt: Parnell-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
Tonka-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
Pu: Perella-----	Severe: percs slowly ponding	Severe: ponding	Severe: ponding	Severe: ponding	Poor: ponding
Ra: Rauville-----	Severe: flooding percs slowly wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
ReA: Renshaw-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
ReB: Renshaw-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
Ro: Rockwell-----	Severe: percs slowly wetness poor filter	Severe: seepage wetness	Severe: wetness	Severe: seepage wetness	Poor: wetness
So: Southam Soils-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
Sr: Sioux-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
Renshaw-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
SsE: Sioux-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage small stones too sandy
Renshaw-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage small stones too sandy
SuA: Svea-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Barnes-----	Severe: percs slowly	Moderate: seepage	Moderate: too clayey	Slight	Fair: too clayey
SvA: Svea-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Cresbard-----	Severe: percs slowly	Moderate: wetness	Severe: excess sodium wetness	Moderate: wetness	Poor: excess sodium hard to pack
ToA: Towner-----	Severe: percs slowly wetness poor filter	Severe: seepage wetness	Moderate: too clayey wetness	Severe: seepage	Fair: too clayey wetness
Un: Ulen-----	Severe: wetness poor filter	Severe: seepage wetness	Severe: seepage too sandy wetness	Severe: seepage wetness	Poor: seepage too sandy
Va: Vallers, Saline-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Poor: wetness
Vh: Vallers-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Poor: wetness
Hamerly-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
Vm: Vallers, Stony-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Poor: wetness
Hamerly, Stony-----	Severe: percs slowly wetness	Severe: wetness	Severe: wetness	Severe: wetness	Fair: too clayey wetness
VnA: Vang-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: small stones too sandy

SANITARY FACILITIES--continued
Walsh County, North Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Brantford-----	Severe: poor filter	Severe: seepage	Severe: seepage too sandy	Severe: seepage	Poor: seepage small stones too sandy
Wa: Wahpeton-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding too clayey	Severe: flooding	Poor: hard to pack too clayey
WhC: Walsh-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too clayey	Slight	Poor: hard to pack
WlA: Walshl., Sand Substratum-----	Severe: percs slowly	Severe: seepage	Severe: seepage	Slight	Fair: small stones too clayey
WlB: Walsh L., Sand Substratum-----	Severe: percs slowly	Severe: seepage	Severe: seepage	Slight	Fair: small stones too clayey
Wm: Walsh-----	Severe: percs slowly	Moderate: seepage wetness	Severe: wetness	Moderate: wetness	Poor: hard to pack
WnA: Walsh-----	Severe: percs slowly	Moderate: seepage wetness	Severe: wetness	Moderate: wetness	Poor: hard to pack
WoB: Waukon-----	Moderate: percs slowly	Moderate: excess humus seepage slope	Moderate: too clayey	Slight	Fair: too clayey
WoD: Waukon-----	Moderate: percs slowly slope	Severe: slope	Moderate: slope too clayey	Moderate: slope	Fair: slope too clayey
ZgC: Zell-----	Moderate: percs slowly	Severe: slope	Slight	Slight	Good
Gardena-----	Severe: wetness	Severe: seepage wetness	Severe: seepage wetness	Severe: seepage wetness	Fair: wetness
ZgE: Zell-----	Moderate: percs slowly slope	Severe: slope	Moderate: slope	Moderate: slope	Fair: slope
Gardena-----	Severe: wetness	Severe: seepage wetness	Severe: seepage wetness	Severe: seepage wetness	Fair: wetness

